

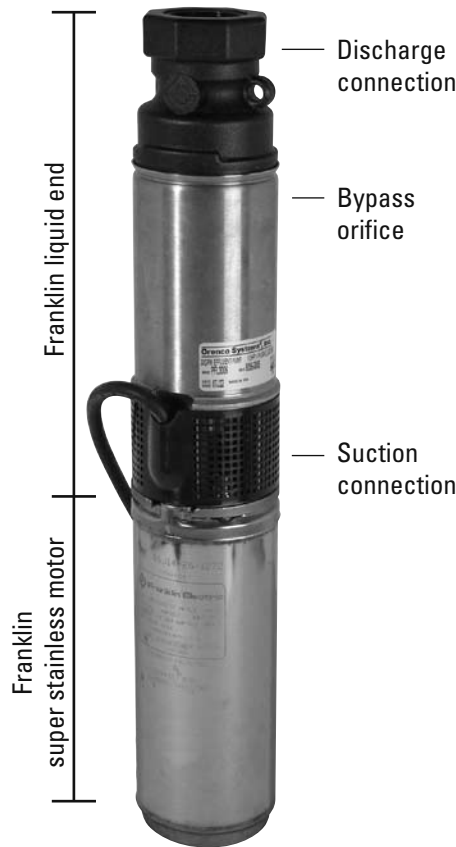
# PF Series 4" (100 mm) Submersible Effluent Pumps



## Applications

Our 4" (100 mm) Submersible Effluent Pumps are designed to transport screened effluent (with low TSS counts) from septic tanks or separate dosing tanks. All our pumps are constructed of lightweight, corrosion-resistant stainless steel and engineered plastics; all are field-serviceable and repairable with common tools; and all 60-Hz PF Series models are CSA certified to the U.S. and Canadian safety standards for effluent pumps, meeting UL requirements.

Oreco's Effluent Pumps are used in a variety of applications, including pressurized drainfields, packed bed filters, mounds, aerobic units, effluent irrigation, effluent sewers, wetlands, lagoons, and more. These pumps are designed to be used with a Biotube® pump vault or after a secondary treatment system.



## Features/Specifications

To specify this pump for your installation, require the following:

- Minimum 24-hour run-dry capability with no deterioration in pump life or performance\*
  - 1/8-inch (3-mm) bypass orifice (patent pending) to ensure flow recirculation for motor cooling and to prevent air bind
  - Liquid end repair kits available for better long-term cost of ownership
  - TRI-SEAL™ floating impeller design on 10, 15, 20, and 30 gpm (0.6, 1.3, and 1.9 L/sec) models; floating stack design on 50 and 75 gpm (3.2 and 4.7 L/sec) models
  - Super stainless Franklin Electric motor, rated for continuous use and frequent cycling
  - Type SOOW 600-V motor cable (suitable for Class I, Division 1 and Division 2 applications)
  - Five-year warranty on pump or retrofit liquid end from date of manufacture against defects in materials or workmanship
- \* Not applicable for 5-hp (3.73 kW) models

## Standard Models

See specifications chart, pages 2-3, for a list of standard pumps. For a complete list of available pumps, call Oreco.

## Nomenclature

|           |                          |                          |                          |                          |                          |   |   |
|-----------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|---|
| <b>PF</b> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | - | <input type="checkbox"/>                        |
|           |                          |                          |                          |                          |                          |   | Cord length, ft (m):                            |
|           |                          |                          |                          |                          |                          |   | Blank = 10 (3)    20' = 20 (6)                  |
|           |                          |                          |                          |                          |                          |   | 30 = 30 (9)    50 = 50 (15)                     |
|           |                          |                          |                          |                          |                          |   | Voltage, nameplate:                             |
|           |                          |                          |                          |                          |                          |   | 1 = 115 <sup>2</sup> 200 = 200                  |
|           |                          |                          |                          |                          |                          |   | 2 = 230 <sup>3</sup> 4 = 460                    |
|           |                          |                          |                          |                          |                          |   | Frequency:                                      |
|           |                          |                          |                          |                          |                          |   | 1 = single-phase 60 Hz    3 = three-phase 60 Hz |
|           |                          |                          |                          |                          |                          |   | 5 = single-phase 50 Hz                          |
|           |                          |                          |                          |                          |                          |   | Horsepower (kW):                                |
|           |                          |                          |                          |                          |                          |   | 03 = 1/8 hp (0.25)    05 = 1/2 hp (0.37)        |
|           |                          |                          |                          |                          |                          |   | 07 = 3/4 hp (0.56)    10 = 1 hp (0.75)          |
|           |                          |                          |                          |                          |                          |   | 15 = 1-1/2 hp (1.11)    20 = 2 hp (1.50)        |
|           |                          |                          |                          |                          |                          |   | 30 = 3 hp (2.24)    50 = 5 hp (3.73)            |
|           |                          |                          |                          |                          |                          |   | Nominal flow, gpm (L/sec):                      |
|           |                          |                          |                          |                          |                          |   | 10 = 10 (0.6)    15 = 15 (1.0)                  |
|           |                          |                          |                          |                          |                          |   | 20 = 20 (1.3)    30 = 30 (1.9)                  |
|           |                          |                          |                          |                          |                          |   | 50 = 50 (3.2)    75 = 75 (4.7)                  |
|           |                          |                          |                          |                          |                          |   | Pump (PF Series)                                |

<sup>1</sup> Note: 20-foot cords are available only for single-phase pumps through 1-1/2 hp

<sup>2</sup> 1/2-hp (0.37kW) only

<sup>3</sup> 220 volts for 50 Hz pumps

# PF Series 4" Submersible Effluent Pumps

## Specifications, 60 Hz

| Pump Model                  | Design gpm<br>(L/sec) | Horsepower<br>(kW) | Phase | Nameplate<br>voltage | Actual voltage | Design flow<br>amps | Max amps | Impellers | Discharge size<br>and material <sup>1</sup> | Length, in. (mm) | Min. liquid level, <sup>2</sup><br>in. (mm) | Weight, <sup>3</sup> lb (kg) | Rated cycles/day |
|-----------------------------|-----------------------|--------------------|-------|----------------------|----------------|---------------------|----------|-----------|---|------------------|---|------------------------------|------------------|
| PF100511                    | 10 (0.6)              | 0.50 (0.37)        | 1     | 115                  | 120            | 12.7                | 12.7     | 6         | 1 ¼ in. GFP                                 | 23.0 (660)       | 16 (406)                                    | 26 (12)                      | 300              |
| PF100512                    | 10 (0.6)              | 0.50 (0.37)        | 1     | 230                  | 240            | 6.3                 | 6.3      | 6         | 1 ¼ in. GFP                                 | 23.0 (660)       | 16 (406)                                    | 26 (12)                      | 300              |
| PF10053200                  | 10 (0.6)              | 0.50 (0.37)        | 3     | 200                  | 208            | 3.8                 | 3.8      | 6         | 1 ¼ in. GFP                                 | 23.0 (660)       | 16 (406)                                    | 26 (12)                      | 300              |
| PF100712 <sup>4,5</sup>     | 10 (0.6)              | 0.75 (0.56)        | 1     | 230                  | 240            | 8.3                 | 8.3      | 8         | 1 ¼ in. GFP                                 | 25.9 (658)       | 17 (432)                                    | 30 (14)                      | 300              |
| PF10073200 <sup>4,5</sup>   | 10 (0.6)              | 0.75 (0.56)        | 3     | 200                  | 208            | 5.1                 | 5.2      | 8         | 1 ¼ in. GFP                                 | 25.4 (645)       | 17 (432)                                    | 31 (14)                      | 300              |
| PF101012 <sup>5,6</sup>     | 10 (0.6)              | 1.00 (0.75)        | 1     | 230                  | 240            | 9.6                 | 9.6      | 9         | 1 ¼ in. GFP                                 | 27.9 (709)       | 18 (457)                                    | 33 (15)                      | 100              |
| PF10103200 <sup>5,6</sup>   | 10 (0.6)              | 1.00 (0.75)        | 3     | 200                  | 208            | 5.5                 | 5.5      | 9         | 1 ¼ in. GFP                                 | 27.3 (693)       | 18 (457)                                    | 37 (17)                      | 300              |
| PF102012 <sup>5,6,7,8</sup> | 10 (0.6)              | 2.00 (1.49)        | 1     | 230                  | 240            | 12.1                | 12.1     | 18        | 1 ¼ in. SS                                  | 39.5 (1003)      | 22 (559)                                    | 48 (22)                      | 100              |
| PF102032 <sup>5,6,8</sup>   | 10 (0.6)              | 2.00 (1.49)        | 3     | 230                  | 240            | 7.5                 | 7.6      | 18        | 1 ¼ in. SS                                  | 37.9 (963)       | 20 (508)                                    | 44 (20)                      | 300              |
| PF10203200 <sup>5,6,8</sup> | 10 (0.6)              | 2.00 (1.49)        | 3     | 200                  | 208            | 8.7                 | 8.7      | 18        | 1 ¼ in. SS                                  | 37.9 (963)       | 20 (508)                                    | 44 (20)                      | 300              |
| PF150311                    | 15 (1.0)              | 0.33 (0.25)        | 1     | 115                  | 120            | 8.7                 | 8.8      | 3         | 1 ¼ in. GFP                                 | 19.5 (495)       | 15 (380)                                    | 23 (10)                      | 300              |
| PF150312                    | 15 (1.0)              | 0.33 (0.25)        | 1     | 230                  | 240            | 4.4                 | 4.5      | 3         | 1 ¼ in. GFP                                 | 19.5 (495)       | 15 (380)                                    | 23 (10)                      | 300              |
| PF200511                    | 20 (1.5)              | 0.50 (0.37)        | 1     | 115                  | 120            | 12.3                | 12.5     | 4         | 1 ¼ in. GFP                                 | 22.3 (566)       | 18 (457)                                    | 25 (11)                      | 300              |
| PF200512                    | 20 (1.5)              | 0.50 (0.37)        | 1     | 230                  | 240            | 6.4                 | 6.5      | 4         | 1 ¼ in. GFP                                 | 22.5 (572)       | 18 (457)                                    | 26 (12)                      | 300              |
| PF20053200                  | 20 (1.5)              | 0.50 (0.37)        | 3     | 200                  | 208            | 3.7                 | 3.8      | 4         | 1 ¼ in. GFP                                 | 22.3 (566)       | 18 (457)                                    | 26 (12)                      | 300              |
| PF201012 <sup>4,5</sup>     | 20 (1.5)              | 1.00 (0.75)        | 1     | 230                  | 240            | 10.5                | 10.5     | 7         | 1 ¼ in. GFP                                 | 28.4 (721)       | 20 (508)                                    | 33 (15)                      | 100              |
| PF20103200 <sup>4,5</sup>   | 20 (1.5)              | 1.00 (0.75)        | 3     | 200                  | 208            | 5.8                 | 5.9      | 7         | 1 ¼ in. GFP                                 | 27.8 (706)       | 20 (508)                                    | 33 (15)                      | 300              |
| PF201512 <sup>4,5</sup>     | 20 (1.5)              | 1.50 (1.11)        | 1     | 230                  | 240            | 12.4                | 12.6     | 9         | 1 ¼ in. GFP                                 | 34.0 (864)       | 24 (610)                                    | 41 (19)                      | 100              |
| PF20153200 <sup>4,5</sup>   | 20 (1.5)              | 1.50 (1.11)        | 3     | 200                  | 208            | 7.1                 | 7.2      | 9         | 1 ¼ in. GFP                                 | 30.7 (780)       | 20 (508)                                    | 35 (16)                      | 300              |
| PF300511                    | 30 (1.9)              | 0.50 (0.37)        | 1     | 115                  | 120            | 11.8                | 11.8     | 3         | 1 ¼ in. GFP                                 | 21.3 (541)       | 20 (508)                                    | 28 (13)                      | 300              |
| PF300512                    | 30 (1.9)              | 0.50 (0.37)        | 1     | 230                  | 240            | 6.2                 | 6.2      | 3         | 1 ¼ in. GFP                                 | 21.3 (541)       | 20 (508)                                    | 25 (11)                      | 300              |
| PF30053200                  | 30 (1.9)              | 0.50 (0.37)        | 3     | 200                  | 208            | 3.6                 | 3.6      | 3         | 1 ¼ in. GFP                                 | 21.3 (541)       | 20 (508)                                    | 25 (11)                      | 300              |
| PF300712                    | 30 (1.9)              | 0.75 (0.56)        | 1     | 230                  | 240            | 8.5                 | 8.5      | 5         | 1 ¼ in. GFP                                 | 24.8 (630)       | 21 (533)                                    | 29 (13)                      | 300              |
| PF30073200                  | 30 (1.9)              | 0.75 (0.56)        | 3     | 200                  | 208            | 4.9                 | 4.9      | 5         | 1 ¼ in. GFP                                 | 24.6 (625)       | 21 (533)                                    | 30 (14)                      | 300              |
| PF301012 <sup>4</sup>       | 30 (1.9)              | 1.00 (0.75)        | 1     | 230                  | 240            | 10.4                | 10.4     | 6         | 1 ¼ in. GFP                                 | 27.0 (686)       | 22 (559)                                    | 32 (15)                      | 100              |
| PF30103200 <sup>4</sup>     | 30 (1.9)              | 1.00 (0.75)        | 3     | 200                  | 208            | 5.8                 | 5.8      | 6         | 1 ¼ in. GFP                                 | 26.4 (671)       | 22 (559)                                    | 33 (15)                      | 300              |
| PF301512 <sup>4,5</sup>     | 30 (1.9)              | 1.50 (1.11)        | 1     | 230                  | 240            | 12.6                | 12.6     | 8         | 1 ¼ in. GFP                                 | 32.8 (833)       | 24 (610)                                    | 40 (18)                      | 100              |
| PF30153200 <sup>4,5</sup>   | 30 (1.9)              | 1.50 (1.11)        | 3     | 200                  | 208            | 6.9                 | 6.9      | 8         | 1 ¼ in. GFP                                 | 29.8 (757)       | 22 (559)                                    | 34 (15)                      | 300              |
| PF301534 <sup>4,5</sup>     | 30 (1.9)              | 1.50 (1.11)        | 3     | 460                  | 480            | 2.8                 | 2.8      | 8         | 1 ¼ in. GFP                                 | 29.5 (685)       | 22 (559)                                    | 34 (15)                      | 300              |
| PF302012 <sup>5,6,7</sup>   | 30 (1.9)              | 2.00 (1.49)        | 1     | 230                  | 240            | 11.0                | 11.0     | 10        | 1 ¼ in. SS                                  | 35.5 (902)       | 26 (660)                                    | 44 (20)                      | 100              |
| PF30203200 <sup>5,6</sup>   | 30 (1.9)              | 2.00 (1.49)        | 3     | 200                  | 208            | 9.3                 | 9.3      | 10        | 1 ¼ in. SS                                  | 34.0 (864)       | 24 (610)                                    | 41 (19)                      | 300              |
| PF303012 <sup>5,6,7,8</sup> | 30 (1.9)              | 3.00 (2.23)        | 1     | 230                  | 240            | 16.8                | 16.8     | 14        | 1 ¼ in. SS                                  | 44.5 (1130)      | 33 (838)                                    | 54 (24)                      | 100              |
| PF303032 <sup>5,6,8</sup>   | 30 (1.9)              | 3.00 (2.23)        | 3     | 230                  | 240            | 10.0                | 10.1     | 14        | 1 ¼ in. SS                                  | 44.3 (1125)      | 27 (686)                                    | 52 (24)                      | 300              |
| PF305012 <sup>5,6,7,8</sup> | 30 (1.9)              | 5.00 (3.73)        | 1     | 230                  | 240            | 25.6                | 25.8     | 23        | 1 ¼ in. SS                                  | 66.5 (1689)      | 53 (1346)                                   | 82 (37)                      | 100              |
| PF305032 <sup>5,6,8</sup>   | 30 (1.9)              | 5.00 (3.73)        | 3     | 230                  | 240            | 16.6                | 16.6     | 23        | 1 ¼ in. SS                                  | 60.8 (1544)      | 48 (1219)                                   | 66 (30)                      | 300              |
| PF30503200 <sup>5,6,8</sup> | 30 (1.9)              | 5.00 (3.73)        | 3     | 200                  | 208            | 18.7                | 18.7     | 23        | 1 ¼ in. SS                                  | 60.8 (1544)      | 48 (1219)                                   | 66 (30)                      | 300              |
| PF500511                    | 50 (3.2)              | 0.50 (0.37)        | 1     | 115                  | 120            | 12.1                | 12.1     | 2         | 2 in. SS                                    | 20.3 (516)       | 24 (610)                                    | 27 (12)                      | 300              |
| PF500512                    | 50 (3.2)              | 0.50 (0.37)        | 1     | 230                  | 240            | 6.2                 | 6.2      | 2         | 2 in. SS                                    | 20.3 (516)       | 24 (610)                                    | 27 (12)                      | 300              |
| PF500532                    | 50 (3.2)              | 0.50 (0.37)        | 3     | 230                  | 240            | 3.0                 | 3.0      | 2         | 2 in. SS                                    | 20.3 (516)       | 24 (610)                                    | 28 (13)                      | 300              |
| PF50053200                  | 50 (3.2)              | 0.50 (0.37)        | 3     | 200                  | 208            | 3.7                 | 3.7      | 2         | 2 in. SS                                    | 20.3 (516)       | 24 (610)                                    | 28 (13)                      | 300              |
| PF500534                    | 50 (3.2)              | 0.50 (0.37)        | 3     | 460                  | 480            | 1.5                 | 1.5      | 2         | 2 in. SS                                    | 20.3 (516)       | 24 (610)                                    | 28 (13)                      | 300              |
| PF500712                    | 50 (3.2)              | 0.75 (0.56)        | 1     | 230                  | 240            | 8.5                 | 8.5      | 3         | 2 in. SS                                    | 23.7 (602)       | 25 (635)                                    | 31 (14)                      | 300              |
| PF500732                    | 50 (3.2)              | 0.75 (0.56)        | 3     | 230                  | 240            | 3.9                 | 3.9      | 3         | 2 in. SS                                    | 23.7 (602)       | 25 (635)                                    | 32 (15)                      | 300              |
| PF50073200                  | 50 (3.2)              | 0.75 (0.56)        | 3     | 200                  | 208            | 4.9                 | 4.9      | 3         | 2 in. SS                                    | 23.1 (587)       | 26 (660)                                    | 32 (15)                      | 300              |

Continued on next page

# PF Series 4" Submersible Effluent Pumps

## Specifications, 60 Hz (continued)

| Pump Model                     | Design gpm (L/sec) | Horsepower (kW) | Phase | Nameplate voltage | Actual voltage | Design flow amps | Max amps | Impellers | Discharge size and material <sup>1</sup> | Length, in. (mm) | Min. liquid level, <sup>2</sup> in. (mm) | Weight, <sup>3</sup> lb (kg) | Rated cycles/day |
|--------------------------------|--------------------|-----------------|-------|-------------------|----------------|------------------|----------|-----------|--|------------------|--|------------------------------|------------------|
| PF500734                       | 50 (3.2)           | 0.75 (0.56)     | 3     | 460               | 480            | 1.8              | 1.8      | 3         | 2 in. SS                                 | 34.8 (884)       | 25 (635)                                 | 31 (14)                      | 300              |
| PF501012                       | 50 (3.2)           | 1.00 (0.75)     | 1     | 230               | 240            | 10.1             | 10.1     | 4         | 2 in. SS                                 | 27.0 (686)       | 26 (660)                                 | 35 (16)                      | 100              |
| PF50103200                     | 50 (3.2)           | 1.00 (0.75)     | 3     | 200               | 208            | 5.7              | 5.7      | 4         | 2 in. SS                                 | 26.4 (671)       | 26 (660)                                 | 39 (18)                      | 300              |
| PF501034                       | 50 (3.2)           | 1.00 (0.75)     | 3     | 460               | 480            | 2.2              | 2.2      | 4         | 2 in. SS                                 | 26.4 (671)       | 26 (660)                                 | 39 (18)                      | 300              |
| PF501512 <sup>4</sup>          | 50 (3.2)           | 1.50 (1.11)     | 1     | 230               | 240            | 12.5             | 12.6     | 5         | 2 in. SS                                 | 32.5 (826)       | 30 (762)                                 | 41 (19)                      | 100              |
| PF50153200 <sup>4</sup>        | 50 (3.2)           | 1.50 (1.11)     | 3     | 200               | 208            | 7.0              | 7.0      | 5         | 2 in. SS                                 | 29.3 (744)       | 26 (660)                                 | 35 (16)                      | 300              |
| PF503012 <sup>4, 5, 7, 8</sup> | 50 (3.2)           | 3.00 (2.23)     | 1     | 230               | 240            | 17.7             | 17.7     | 8         | 2 in. SS                                 | 43.0 (1092)      | 37 (940)                                 | 55 (25)                      | 100              |
| PF50303200 <sup>4, 5, 8</sup>  | 50 (3.2)           | 3.00 (2.23)     | 3     | 200               | 208            | 13.1             | 13.1     | 8         | 2 in. SS                                 | 43.4 (1102)      | 30 (762)                                 | 55 (25)                      | 300              |
| PF503034 <sup>4, 5, 8</sup>    | 50 (3.2)           | 3.00 (2.23)     | 3     | 460               | 480            | 5.3              | 5.3      | 8         | 2 in. SS                                 | 40.0 (1016)      | 31 (787)                                 | 55 (25)                      | 300              |
| PF505012 <sup>5, 6, 7, 8</sup> | 50 (3.2)           | 5.00 (3.73)     | 1     | 230               | 240            | 26.2             | 26.4     | 13        | 2 in. SS                                 | 65.4 (1661)      | 55 (1397)                                | 64 (29)                      | 300              |
| PF505032 <sup>5, 6, 7, 8</sup> | 50 (3.2)           | 5.00 (3.73)     | 3     | 230               | 240            | 16.5             | 16.5     | 13        | 2 in. SS                                 | 59.3 (1506)      | 49 (1245)                                | 64 (29)                      | 300              |
| PF751012                       | 75 (4.7)           | 1.00 (0.75)     | 1     | 230               | 240            | 9.9              | 10.0     | 3         | 2 in. SS                                 | 27.0 (686)       | 27 (686)                                 | 34 (15)                      | 100              |
| PF751512                       | 75 (4.7)           | 1.50 (1.11)     | 1     | 230               | 240            | 12.1             | 12.3     | 4         | 2 in. SS                                 | 33.4 (848)       | 30 (762)                                 | 44 (20)                      | 100              |

## Specifications, 50 Hz,

| Pump Model               | Design gpm (L/sec) | Horsepower (kW) | Phase | Nameplate voltage | Actual voltage | Design flow amps | Max amps | Impellers | Discharge size and material <sup>1</sup> | Length, in. (mm) | Min. liquid level, <sup>2</sup> in. (mm) | Weight, <sup>3</sup> lb (kg) | Rated cycles/day |
|--------------------------|--------------------|-----------------|-------|-------------------|----------------|------------------|----------|-----------|--|------------------|--|------------------------------|------------------|
| PF100552                 | 10 (0.6)           | 0.50 (0.37)     | 1     | 220               | 230            | 3.9              | 4.1      | 6         | 1 ¼ in. GFP                              | 23.0 (584)       | 17 (432)                                 | 26 (12)                      | 300              |
| PF100752 <sup>4, 5</sup> | 10 (0.6)           | 0.75 (0.56)     | 1     | 220               | 230            | 6.2              | 6.2      | 9         | 1 ¼ in. GFP                              | 26.8 (658)       | 17 (432)                                 | 30 (14)                      | 300              |
| PF101552 <sup>5, 6</sup> | 10 (0.6)           | 1.50 (1.11)     | 1     | 220               | 230            | 10.5             | 11.4     | 18        | 1 ¼ in. SS                               | 39.5 (1003)      | 22 (559)                                 | 46 (21)                      | 300              |
| PF300552                 | 30 (1.9)           | 0.50 (0.37)     | 1     | 220               | 230            | 4.1              | 4.1      | 4         | 1 ¼ in. GFP                              | 22.5 (572)       | 19 (483)                                 | 26 (12)                      | 300              |
| PF300752                 | 30 (1.9)           | 0.75 (0.56)     | 1     | 220               | 230            | 6.1              | 6.1      | 5         | 1 ¼ in. GFP                              | 24.8 (630)       | 19 (483)                                 | 29 (13)                      | 300              |
| PF301052                 | 30 (1.9)           | 1.00 (0.75)     | 1     | 220               | 230            | 7.4              | 7.4      | 7         | 1 ¼ in. GFP                              | 28.4 (721)       | 20 (508)                                 | 32 (15)                      | 100              |
| PF301552 <sup>4, 5</sup> | 30 (1.9)           | 1.50 (1.11)     | 1     | 220               | 230            | 9.3              | 9.3      | 8         | 1 ¼ in. GFP                              | 35.4 (899)       | 24 (610)                                 | 40 (18)                      | 100              |
| PF500552                 | 50 (3.2)           | 0.50 (0.37)     | 1     | 220               | 230            | 4.0              | 4.0      | 2         | 2 in. SS                                 | 20.3 (516)       | 25 (635)                                 | 29 (13)                      | 300              |
| PF500752                 | 50 (3.2)           | 0.75 (0.56)     | 1     | 220               | 230            | 6.3              | 6.4      | 3         | 2 in. SS                                 | 23.7 (602)       | 25 (635)                                 | 31 (14)                      | 300              |
| PF501052                 | 50 (3.2)           | 1.00 (0.75)     | 1     | 220               | 230            | 7.3              | 7.4      | 4         | 2 in. SS                                 | 27.0 (686)       | 26 (660)                                 | 35 (16)                      | 100              |
| PF501552                 | 50 (3.2)           | 1.50 (1.11)     | 1     | 220               | 230            | 9.1              | 9.1      | 5         | 2 in. SS                                 | 32.5 (826)       | 30 (762)                                 | 42 (19)                      | 100              |
| PF751052                 | 75 (3.2)           | 1.00 (0.75)     | 1     | 220               | 230            | 7.3              | 7.3      | 4         | 2 in. SS                                 | 30.0 (762)       | 27 (686)                                 | 34 (15)                      | 100              |

<sup>1</sup> GFP = glass-filled polypropylene; SS = stainless steel. The 1 ¼-in. NPT GFP discharge is 2 7/8 in. octagonal across flats; the 1 ¼-in. NPT SS discharge is 2 ½ in. octagonal across flats; and the 2-in. NPT SS discharge is 2 7/8 in. hexagonal across flats. Discharge is female NPT threaded, U.S. nominal size, to accommodate Orenco® discharge hose and valve assemblies. Consult your Orenco Distributor about fittings to connect hose and valve assemblies to metric-sized piping.

<sup>2</sup> Minimum liquid level is for single pumps when installed in an Orenco Biotube® Pump Vault or Universal Flow Inducer. In other applications, minimum liquid level should be top of pump. Consult Orenco for more information.

<sup>3</sup> Weight includes carton and 10-ft (3-m) cord.

<sup>4</sup> High-pressure discharge assembly required.

<sup>5</sup> Do not use cam-lock option (Q) on discharge assembly.

<sup>6</sup> Custom discharge assembly required for these pumps. Contact Orenco.

<sup>7</sup> Capacitor pack (sold separately or installed in a custom control panel) required for this pump. Contact Orenco.

<sup>8</sup> Torque locks are available for all pumps, and are supplied with 3-hp and 5-hp pumps.

# PF Series High-Head Effluent Pumps

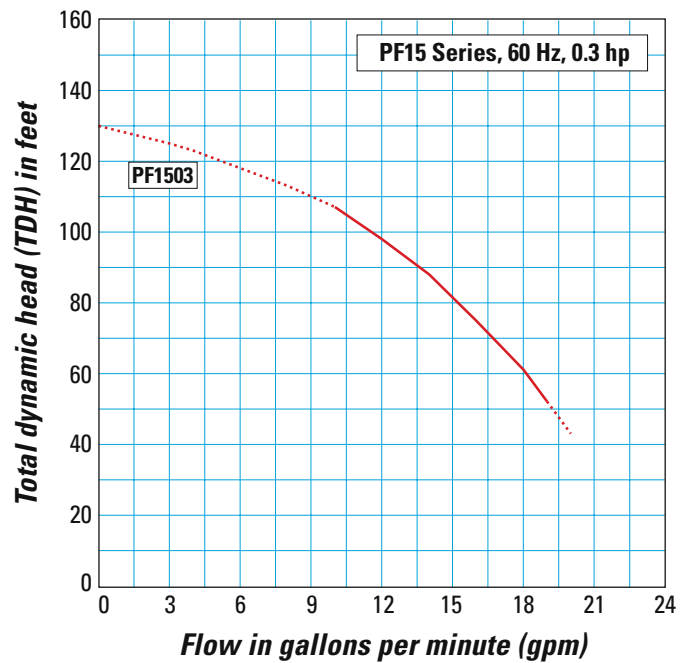
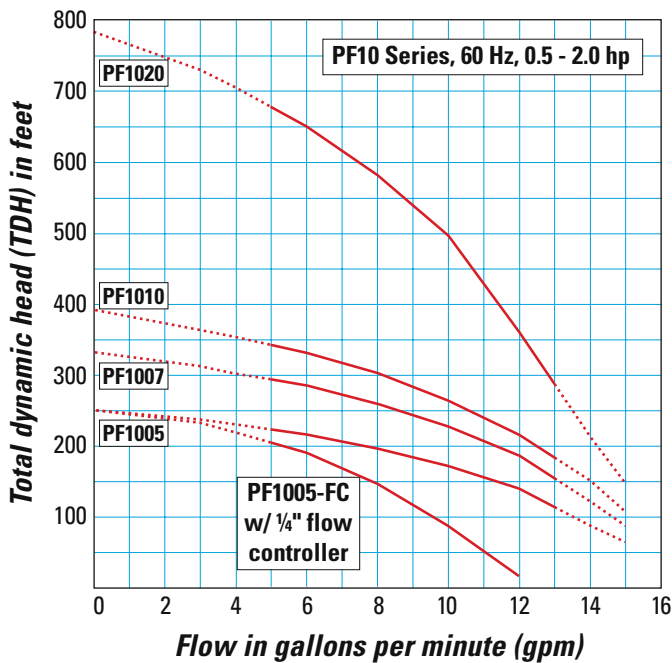
## Materials of Construction

|                     |   |
|---------------------|---|
| Discharge:          | Glass-filled polypropylene or stainless steel   |
| Discharge bearing:  | Engineered thermoplastic (PEEK)   |
| Diffusers:          | Glass-filled PPO (Noryl GFN3)   |
| Impellers:          | Celcon® acetal copolymer on 10-, 20, and 30-gpm models; 50-gpm impellers are Noryl GFN3   |
| Intake screen:      | Polypropylene   |
| Suction connection: | Stainless steel   |
| Drive shaft:        | 7/16 inch hexagonal stainless steel, 300 series   |
| Coupling:           | Sintered stainless steel, 300 series  |
| Shell:              | Stainless steel, 300 series   |
| Motor:              | Franklin motor exterior constructed of stainless steel. Motor filled with deionized water and propylene glycol for constant lubrication. Hermetically sealed motor housing ensures moisture-free windings. All thrust absorbed by Kingsbury-type thrust bearing. Rated for continuous duty. Single-phase motors and 200 and 230 V 3-phase motors equipped with surge arrestors for added security. Single-phase motors through 1.5 hp (1.11 kW) have built-in thermal overload protection, which trips at 203-221° F (95-105° C). |

## Using a Pump Curve

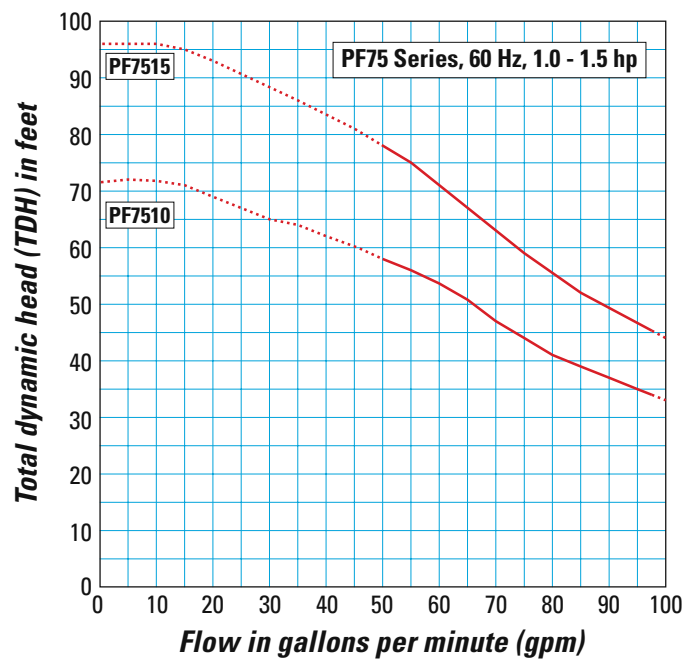
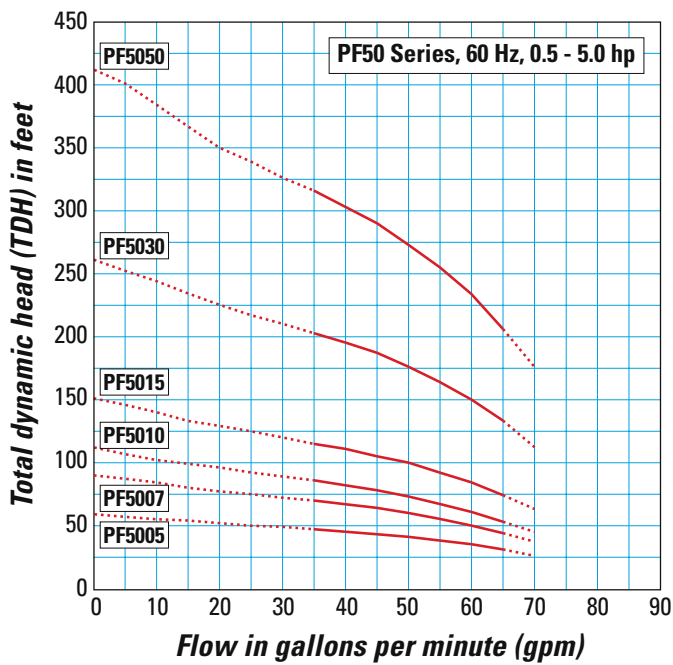
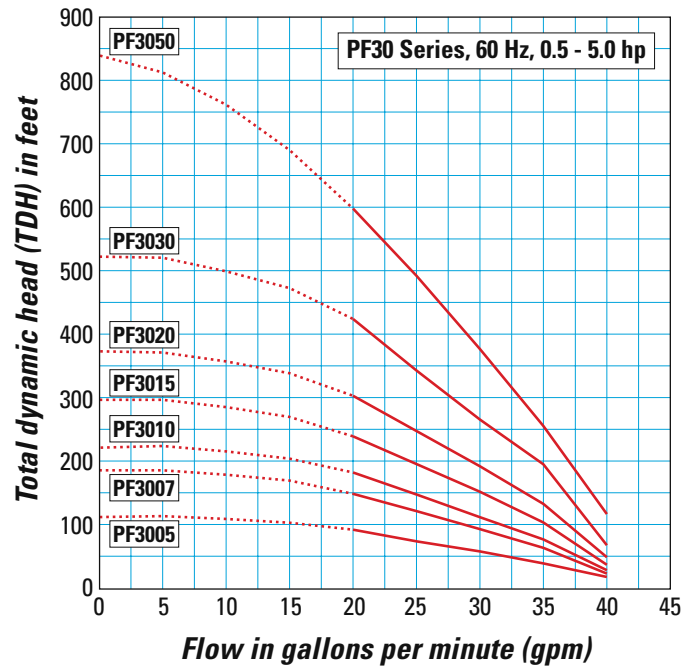
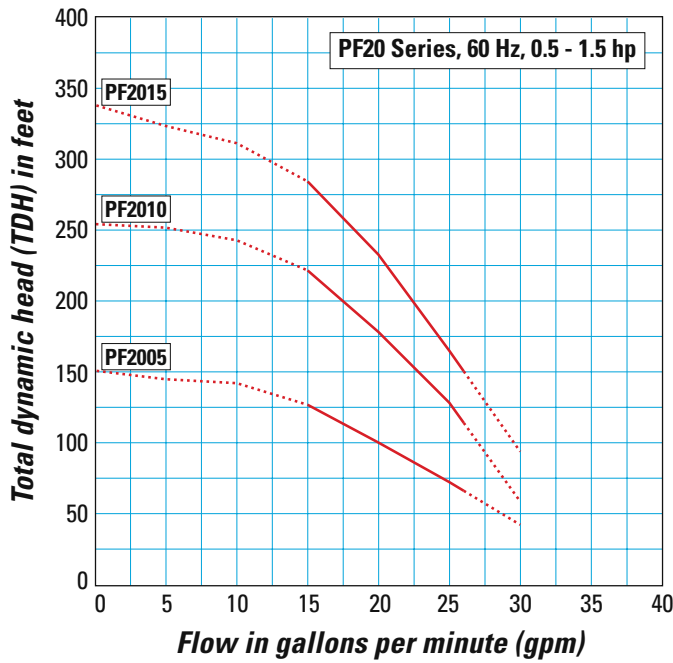
A *pump curve* helps you determine the best pump for your system. Pump curves show the relationship between flow (gpm or L/sec) and pressure (total dynamic head, or TDH), providing a graphical representation of a pump's optimal performance range. Pumps perform best at their *nominal flow rate* — the value, measured in gpm, expressed by the first two numerals in an Orenco pump nomenclature. The graphs in this section show optimal pump operation ranges with a solid line. Flow flow rates outside of these ranges are shown with a dashed line. For most accurate pump specification, use Orenco's PumpSelect™ software.

## Pump Curves, 60 Hz Models



# PF Series High-Head Effluent Pumps

## 60 Hz Models (continued)



# PF Series High-Head Effluent Pumps

## Pump Curves, 50 Hz Models

